

Title (en)  
ULTRASONIC INSTRUMENT AND METHOD FOR MANUFACTURING SAME

Title (de)  
ULTRASCHALLINSTRUMENT UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)  
INSTRUMENT ULTRASONORE ET SON PROCÉDÉ DE FABRICATION

Publication  
**EP 3013261 A4 20160928 (EN)**

Application  
**EP 14818585 A 20140623**

Priority  
• US 201313930148 A 20130628  
• US 2014043630 W 20140623

Abstract (en)  
[origin: US2015005795A1] An ultrasonic tool or instrument has a probe shaft with a linear proximal end portion and a linear distal end portion disposed at an angle relative to one another and joined at a bend in the shaft. A coupling is provided at a proximal end of the shaft for connecting the probe to a source of ultrasonic vibrational energy. A head provided at a distal end of the shaft extends eccentrically in a transverse direction to one side of the shaft. The head has an operative tip spaced laterally from the axis and is formed with at least one cutout for reducing mass of the head and concomitantly eccentric mass of the probe. The tool or instrument has at least one interior antinode along the shaft and the bend is located substantially distally of the antinode.

IPC 8 full level  
**A61B 17/32** (2006.01)

CPC (source: EP US)  
**A61B 17/320068** (2013.01 - EP US); **A61B 2017/320072** (2013.01 - US); **A61B 2017/320073** (2017.07 - EP US);  
**A61B 2017/320089** (2017.07 - EP US); **Y10T 29/49** (2015.01 - EP US)

Citation (search report)  
• [XYI] WO 8602257 A1 19860424 - COOPERVISION INC [US]  
• [Y] US 2003204199 A1 20031030 - NOVAK THEODORE A D [US], et al  
• [A] WO 03092793 A2 20031113 - MISONIX INC [US]  
• See references of WO 2014209869A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**US 10398463 B2 20190903; US 2015005795 A1 20150101**; CA 2916967 A1 20141231; CA 2916967 C 20211116; CN 105517500 A 20160420;  
EP 3013261 A1 20160504; EP 3013261 A4 20160928; EP 3013261 B1 20220323; ES 2912193 T3 20220524; HK 1223533 A1 20170804;  
JP 2016526434 A 20160905; JP 6534996 B2 20190626; WO 2014209869 A1 20141231

DOCDB simple family (application)  
**US 201313930148 A 20130628**; CA 2916967 A 20140623; CN 201480043638 A 20140623; EP 14818585 A 20140623;  
ES 14818585 T 20140623; HK 16111843 A 20161013; JP 2016523829 A 20140623; US 2014043630 W 20140623